

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Thomas Lloyd Hiller
David Albert Rossetti

Serial No.: 10/799,569

Filed: March 12, 2004

For: METHOD AND APPARATUS FOR
PROVIDING A LOW-LATENCY, HIGH-
ACCURACY INDICATION-TO-SPEAK

Confirmation No. 6464

Examiner: Vuong, Quochien B.

Group Art Unit: 2618

Att'y Docket: 2100.005300

Customer No. 46290

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

The Examiner rejected claims 1-13 under 35 U.S.C. § 102(b) for allegedly being anticipated by Rosen (WO 02/093953). An anticipating reference, by definition, must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. Applicants respectfully submit that Rosen does not describe or suggest all the limitations set forth in the pending claims in the same relationship to one another as set forth in the claims. Applicants therefore submit that the Examiner has erred in concluding that the pending claims

are anticipated by Rosen. Applicants have submitted a notice of appeal and hereby request a pre-appeal brief panel review of the Examiner's rejections.

Push-to-talk-over-cellular (PoC) wireless communication systems provide a one-to-many transmission mode that is similar to the communication modes used by conventional police or fire radio systems. These systems use an indication-to-speak signal to indicate to a calling mobile station that it may begin generating media (such as a voice signal) for eventual transmission to one or more called parties. Significant delays or latency between a request to speak and receiving the indication-to-speak to a calling user is a problematic issue in PoC systems. There is also a countervailing need to provide accurate indications for the user to speak. See Patent Application, page 3, lines 4-22. Conventional wireless networks can provide an unconfirmed indication-to-speak. The indication-to-speak is “unconfirmed” because it is transmitted before signaling the called mobile units to verify that they can accept the incoming PoC call. The user begins speaking when the indication-to-speak is received and the speaker's voice packets are buffered. After sending the unconfirmed indication-to-speak, the wireless network pages the called mobile stations and releases the buffered speech to the called mobile station after the mobile station responds to the page and sets up an over-the-air connection. Although the unconfirmed indication-to-speak approach may reduce latency, the accuracy of the technique is limited. See Patent Application, page 5, line 12.

The present application describes an alternative approach that is referred to herein as the page-event indication-to-speak that has latency comparable to the unconfirmed indication-to-speak and accuracy comparable to a confirmed indication-to-speak. See Patent Application, page 7, line 24-page 8, line 6. The pending claims set forth embodiments of the page-event indication-to-speak that may include, among other things, the following steps:

- providing an indication-to-speak to a first mobile station in response to receiving a page-event indication from a mobility data network. The page-event indication is formed by the mobility data network based on a page response signal received from a dormant mobile station.
- establishing a connection with the dormant mobile station in response to receiving the page response signal. The indication-to-speak is provided to the first mobile station concurrently with establishing the connection.

The claimed embodiments therefore use the page response received at the mobility data network to initiate both the transmission of the indication-to-speak to the calling party and the concurrent establishment of a connection to the called party. The claimed page-event indication-to-speak approach is therefore distinguished from the conventional unconfirmed indication-to-speak technique by two features. First, the page-event indication-to-speak is not provided until the mobility data network receives a page response from the called party. Receiving the page response indicates a high probability that the dormant mobile station will be available to receive communication from the first mobile station. Second, the claimed page-event indication-to-speak is provided concurrently with establishing the connection to the dormant mobile station. The claimed page-event indication-to-speak is therefore provided before the mobile station establishes a traffic channel and consequently before the mobile station responds by sending PoC signaling over the traffic channel to accept the incoming PoC call.

Applicants respectfully submit that Rosen describes an unconfirmed indication-to-speak technique. Rosen describes waking up dormant mobile units in a group of idle mobile units and re-establishing dedicated traffic channels using short data burst message signaling. See Rosen, paragraphs [0108-0119].

In step 2 of the Rosen technique, a talker's mobile transmits a floor-request message in response to a user pressing push-to-talk. The talker's mobile may begin buffering user media from this point forward. See Rosen, paragraph [0110]. Applicants therefore respectfully submit that the user has been given an implicit or explicit indication-to-speak at this point. This indication has been provided to the user in response to a user pressing push-to-talk and prior to receiving any response from the dormant mobile units in the group. In fact, the indication-to-speak is provided to the user before the talker's mobile unit even attempts to reestablish its own traffic channel by sending an origination message in step 3. See Rosen, paragraph [0111]. Applicants therefore respectfully submit that Rosen does not describe or suggest providing an indication-to-speak to a first mobile station in response to receiving a page-event indication formed by a mobility data network based on a page response signal received from a dormant mobile station, as set forth in the pending claims.

In step 7, each listener mobile responds to the page that was generated by the infrastructure in step 5. This begins the process of re-establishing each listener's traffic channel. See Rosen, paragraph [0115]. Rosen therefore teaches that the process of re-establishing the listener traffic channels begins several steps after an indication-to-speak has been provided to the talker and after the talker has begun "speaking" and buffering this information for eventual transmission to the listeners. Applicants therefore respectfully submit that Rosen does not describe or suggest providing an indication-to-speak to a first mobile station concurrently with establishing a connection with the dormant mobile station, as set forth in the pending claims.

For at least the aforementioned reasons, Applicants respectfully submit that the pending claims are not anticipated by Rosen and request that the Examiner's rejections of claims 1-13 under 35 U.S.C. § 102(b) be withdrawn.

It is believed no fee is due; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Director is authorized to deduct said fees from Williams, Morgan & Amerson, P.C. Deposit Account No. 50-0786/***.

Respectfully submitted,

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